

REMARKS

Favorable reconsideration and allowance of this application is solicited.

1. Discussion of Amendments

By way of the amendment instructions above, pending independent claim 1 has been paragraphed for purpose of visual clarity. In addition, language more consistent with US claim practice has been adopted (i.e., changing "characterized in that" to "wherein").

Claims 5-9 directed to a patentably distinct invention non-elected for prosecution herein have been cancelled. Cancellation of such claims has however been effected without prejudice to the applicants' rights under 35 USC §121.

Therefore, following entry of this amendment, claims 1-4 will remain pending herein for which favorable action on the merits is solicited.

2. Response to 35 USC §103(a) Rejection

The only issue to be resolved in this application is the Examiner's rejection of prior claims 1-4 as allegedly "obvious" and hence unpatentable over Schmitt et al (USP 6,669,706). As will become evident from the following discussion, Schmitt et al is inappropriate as a reference against the pending claims herein.

It is in fact true that Schmitt et al discloses a soft and flexible tissue mesh. It is, however, really at this juncture that any perceived similarities between Schmitt et al and the presently claimed invention cease. Specifically, as discussed below, there are at least three important and patentably distinct differences between the subject matter defined in the applicants' pending claims and the disclosure of Schmitt et al.

I. Schmitt et al teaches away from mesh made of polyethylene yarns.

The tissue mesh of Schmitt contains polymeric yarns, but not polyethylene yarns as the examiner alleges.

In this regard, the Examiner refers to column 1, lines 52-58 of Schmitt et al to support the contention that the surgical mesh comprise polyethylene. There indeed is disclosed in such passage the use a mesh containing monofilament or multi-filament polyethylene yarns. However polyethylene monofilament or multifilament yarns are not disclosed in the context of the tissue mesh proposed by Schmitt et al, but instead is said to be part of the prior art (USP 3,054,406). Significantly, Schmitt et al note that the use of polyethylene yarn is not useful since it shows serious disadvantages. Specifically, in the case wherein the mesh is formed of monofilaments, the mesh only has a limited pliability. On the other hand, when the mesh is formed of multifilament yarns, the mesh may be prone to harboring of infectious matter

Therefore, Schmitt et al teaches directly away from a mesh formed of polyethylene yarns as disclosed in USP 3,054,406. Moreover, Schmitt et al nowhere mentions the use of polyethylene yarns for their own mesh, but instead suggests that copolyester yarns are superior to polyethylene yarns of USP 3,054,406.

II. Schmitt et al cannot possibly “inherently” disclose the tensile strength and relative viscosity as claimed by the applicants.

The Examiner alleges also that the values for the tensile strength and the relative viscosity as defined in the applicants' pending claims are “inherently” disclosed in Schmitt et al. Such a position is factually and legally erroneous. First of all the use of polyethylene yarns in the mesh of Schmitt is not at all disclosed, as explained above, so certainly no inherent properties of such yarns are disclosed. Secondly even in Schmitt et al these values cannot inherently be disclosed. In this regard, the Examiner can take official notice of the fact that Schmitt et al was published more than 50 years ago, decades before the high performance polyethylene yarns used in the soft tissue mesh

of the present invention were developed. Thus, there can be no "inherent" disclosure of polyethylene yarns that were not even developed at the time of Schmitt et al.

In support of her position, the Examiner alleges that the claimed yarn properties are inherently disclosed in Schmitt et al since bi-component polyethylene yarns are disclosed therein. Such a position is erroneous per se. Specifically, no bi-component polyethylene yarns are in fact disclosed in Schmitt et al. What is disclosed in Schmitt et al are bi-component ***polyethylene terephthalate/isophthalate co-polyester yarns***. A co-polyester is a totally different polymer as compared to polyethylene. In addition, the bi-component filaments show no relation with the mono-filament like yarn used in the mesh of the present invention.

III. Schmitt et al does not disclose yarns containing sheath and core in a specific weight ratio.

As the Examiner admits, the feature that the yarn as claimed by the applicants contains a sheath and a core having a specific weight ratio is not disclosed in Schmitt et al. Moreover, the Examiner nowhere explains why such features are unobvious over Schmitt et al.

In Schmitt et al it is explained that a mesh made from monofilaments provide satisfactory reinforcement ability, but the mesh is generally stiff and has limited pliability (see col. 1, lines 31-33 and col. 1, line 56). Schmitt et al also teach that meshes from multi-filament yarns are soft and pliable, however they have the disadvantage that they tend to harbor infectious matter, such as bacteria (col. 1, lines 38-39). Because of these disadvantageous, Schmitt et al provide a mesh of multifilament yarn, wherein the filaments are embedded in a matrix material.

According to the present invention and directly *opposite* to the teaching of Schmitt et al the mesh is in fact made of a monofilament-like yarn. See in this regard page 3, lines 11-28, especially lines 22-25, where it is explained that the polyethylene yarn used in the present invention is, due to its special structure, in between a normal

multifilament yarn and a monofilament. Surprisingly when a monofilament-like yarn is used having a *core of filaments that show no or little adhesion*, and a sheath of a non-porous layer, in a specific weight ratio of 5:1, a tissue mesh is obtained which is still soft and flexible. According to Schmitt et al there is no suggestion given whatsoever that such a mesh may be obtained. To the contrary, Schmitt et al gives negative advice on the use of monofilaments, and therefore does not even hint at the use of the monofilament like yarn of the present invention. Schmitt et al certainly does not teach that specific polyethylene yarns in the specific weight ratio of core and sheath give the soft and flexible tissue mesh as claimed

IV. Conclusion.

All pending claims are patentably *unobvious* over Schmitt et al. Withdrawal of the rejection advanced under 35 USC §103(a) is therefore in order.

3. Fee Authorization

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /Bryan H. Davidson/
Bryan H. Davidson
Reg. No. 30,251

BHD:dlb
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100